Serial No.: 08/990,096

Filed

: December 12, 1997

Page

s Docket No.: 12128-027001

The server system according to claim 2, wherein the session request includes parameters 3. for transmitting information along the communication path in accordance with the QoS service.

- 4. The server system according to claim 1, wherein sending a message includes presenting the message to the originating router as a Telnet message.
- 5. The server system according to claim 1, further comprising: establishing the communication path if sufficient resources are determined to exist at the routers in the communication path.
- 6. A method for establishing a communication path connecting an originating router to a destination router via other routers along the communication path, comprising:

receiving a session request at a server for establishing a communication path for transmitting information to the destination router, the server having a location that is independent of the communication path;

sending a message to the originating router in the communication path in response to the session request, the message including a request to reserve resources for transmitting the information; and

monitoring the routers in the communication path to determine whether sufficient resources exist to establish the communication path in accordance with the session request.

- 7. The method according to claim 6, wherein receiving a session request further includes receiving a request for a quality of service (QoS service) session.
- 8. The method according to claim 7, wherein receiving a session request further includes receiving parameters for transmitting information along the communication path in accordance with the QoS service.
- 9. The method according to claim 6, wherein sending a message includes presenting the message to the originating router as a Telnet message.

Serial No.: 08/990,096

: December 12, 1997 Filed

Page

10. The method according to claim 6, further comprising: establishing the communication path if sufficient resources are determined to exist at the routers in the communication path.

's Docket No.: 12128-027001

11. A network communication system for establishing a transmission path, comprising: an originating router coupled to a host in a first local area network; a destination router coupled to another host in a second local area network; and a server having a location that is independent of the transmission path, coupled to the originating router, for receiving a session setup request from the host, said server including:

a session setup module for sending a message to the originating router in response to the session setup request, the message including a request to reserve resources for transmitting traffic along the transmission path from the originating router via other routers to the destination router; and

a node server module for monitoring the routers along the transmission path to determine whether sufficient resources exist to establish the transmission path in accordance with the session setup request.

- 12. The network communication system according to claim 11, wherein the session setup request includes a request for a quality of service (QoS service) session.
- 13. The network communication system according to claim 12, wherein the session setup request further includes parameters for transmitting information along the communication path in accordance with the QoS service.
- 14. The network communication system according to claim 11, wherein the session setup module presents the message to the originating router as a Telnet message.
- 15. The network communication system according to claim 11, wherein the session setup module notifies the host that the transmission path has been established if the routers in the transmission path have sufficient resources to establish the transmission path.



Serial No.: 08/990,096

Filed : December 12, 1997

Page

16. The network communication system according to claim 11, wherein the server further includes:

's Docket No.: 12128-027001

a database server for checking whether the session setup request is authorized.

17. A method for establishing a communication path connecting an originating router to a destination router via other routers along the communication path, comprising of:

receiving a session request at a server for establishing a communication path for transmitting information to the destination router, the server having a location that is independent of the communication path;

sending a resource reservation request to a router in the communication path to reserve resources in accordance with the session request; and

monitoring the routers in the communication path to determine whether resources exist to establish the communication path.

18. A computer program residing on a computer readable medium comprising instructions for causing a computer to:

receive a session request at a server for establishing a communication path from an originating router for transmitting information via other routers to a destination router, the server having a location that is independent of the communication path;

send a resource reservation request from the server to the originating router to reserve resources in accordance with the session request; and

monitor the routers in the communication path at the server to determine whether resources exist to establish the communication path.

19. A central server system comprising a QoS server connected to a series of routers, the server managing QoS matters for a session established along a communication path from an originating router via other routers to a destination router, the central server system having a location that is independent of the communication path.

Serial No.: 08/990,096

: December 12, 1997 Filed

Page

20. The system of claim 19 wherein the QoS server is adapted to:

receive a session request from the originating router for establishing the communication path for transmitting information to the destination router;

's Docket No.: 12128-027001

send a message to the originating router in response to the session request, the message including a request to reserve resources for transmitting the information; and

monitor the routers in the communication path to determine whether sufficient resources exist to establish the communication path in accordance with the session request.

- 21. The system of claim 20 wherein the session request includes parameters for transmitting information along the communication path in accordance with the QoS service.
- 22. The system of claim 20 wherein the message sent to the original router is presented to the originating router as a Telnet message.
- 23. The system of claim 20 wherein the QoS server is further adapted to: establish the communication path if sufficient resources are determined to exist at the routers in the communication path.
- A server system for establishing a communication path connecting an originating router 24. to a destination router via other routers along the communication path, the server system having a location that is independent of the communication path, comprising:

a server adapted to

means for receiving a session request for establishing the communication path for transmitting information from the originating router to the destination router;

means for sending a message to the originating router in response to the session request, the message including a request to reserve resources for transmitting the information; and

means for monitoring the routers in the communication path to determine whether sufficient resources exist to establish the communication path in accordance with the session request. --

